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Terms	Documents
L37 and index	3

US Patents Full-Text Database
 US Pre-Grant Publication Full-Text Database
 JPO Abstracts Database
 EPO Abstracts Database
 Derwent World Patents Index
 IBM Technical Disclosure Bulletins

Database:**Search:**[Refine Search](#)[Recall Text](#)[Clear](#)**Search History**
DATE: Thursday, March 14, 2002 [Printable Copy](#) [Create Case](#)
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 side by side

Hit Count **Set Name**
 result set

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L38</u>	L37 and index	3	<u>L38</u>
<u>L37</u>	L36 and parcel	3	<u>L37</u>
<u>L36</u>	I27 and geographic same database	6	<u>L36</u>

DB=USPT; PLUR=YES; OP=OR

<u>L35</u>	5410485.pn.	1	<u>L35</u>
<u>L34</u>	5508930.pn.	1	<u>L34</u>
<u>L33</u>	5519619.pn.	1	<u>L33</u>
<u>L32</u>	5729458.pn.	1	<u>L32</u>

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L31</u>	6202026.uref.	3	<u>L31</u>
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<u>L30</u>	6173232.uref.	2	<u>L30</u>
<u>L29</u>	6144318.uref.	3	<u>L29</u>
<u>L28</u>	6144318.uref.	3	<u>L28</u>
<u>L27</u>	5519619.uref.	19	<u>L27</u>

DB=USPT; PLUR=YES; OP=OR

<u>L26</u>	6144318.pn.	1	<u>L26</u>
<u>L25</u>	6173232.pn.	1	<u>L25</u>
<u>L24</u>	6202026.pn.	1	<u>L24</u>

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L23</u>	l4 and L18	1	<u>L23</u>
<u>L22</u>	l4 and L19	0	<u>L22</u>
<u>L21</u>	l4 and L20	0	<u>L21</u>
<u>L20</u>	5519619.pn.	3	<u>L20</u>
<u>L19</u>	5587911.pn.	3	<u>L19</u>
<u>L18</u>	6292745.pn.	2	<u>L18</u>

DB=USPT; PLUR=YES; OP=OR

<u>L17</u>	5519619.pn.	1	<u>L17</u>
<u>L16</u>	5537324.pn.	1	<u>L16</u>
<u>L15</u>	5587911.pn.	1	<u>L15</u>
<u>L14</u>	5724520.pn.	1	<u>L14</u>
<u>L13</u>	5815161.pn.	1	<u>L13</u>
<u>L12</u>	5832406.pn.	1	<u>L12</u>
<u>L11</u>	6175803.pn.	1	<u>L11</u>
<u>L10</u>	6184823.pn.	1	<u>L10</u>
<u>L9</u>	6185503.pn.	1	<u>L9</u>
<u>L8</u>	6128571.pn.	1	<u>L8</u>
<u>L7</u>	6144318.pn.	1	<u>L7</u>
<u>L6</u>	6173232.pn.	1	<u>L6</u>
<u>L5</u>	6202026.pn.	1	<u>L5</u>

DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR

<u>L4</u>	L3 and (within or inside) same parcel	20	<u>L4</u>
<u>L3</u>	L1 and (organiz\$ or access) same data same entities	119	<u>L3</u>
<u>L2</u>	L1 and organiz\$ or access same data same entities	3528	<u>L2</u>
<u>L1</u>	geographic same database	1747	<u>L1</u>

END OF SEARCH HISTORY

WEST**Generate Collection****Print****Search Results - Record(s) 1 through 1 of 1 returned.**

1. Document ID: US 6144318 A

L7: Entry 1 of 1

File: USPT

Nov 7, 2000

US-PAT-NO: 6144318

DOCUMENT-IDENTIFIER: US 6144318 A

TITLE: Navigation system

DATE-ISSUED: November 7, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hayashi; Seiji	Anjo			JPX
Hayashida; Kihachi	Anjo			JPX
Nimura; Mitsuhiro	Anjo			JPX
Ito; Yasunobu	Anjo			JPX

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Aisin AW Co., Ltd.				JPX	03

APPL-NO: 8 / 739709

DATE FILED: October 29, 1996

FOREIGN-APPL-PRIORITY-DATA:

COUNTRY	APPL-NO	APPL-DATE
JP	7-281779	October 30, 1995
JP	8-108146	April 26, 1996
JP	8-108149	April 26, 1996

INT-CL: [7] G08 G 1/123

US-CL-ISSUED: 340/995; 340/988, 340/990, 701/202, 701/209

US-CL-CURRENT: 340/995; 340/988, 340/990, 701/202, 701/209

FIELD-OF-SEARCH: 340/995, 340/990, 340/988, 345/123, 701/200, 701/201, 701/202, 701/205, 701/206, 701/209, 701/210, 701/211, 73/178R

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<u>4737916</u>	April 1988	Ogawa et al.	701/200
<u>5293163</u>	March 1994	Kakihara et al.	349/995
<u>5371497</u>	December 1994	Nimura et al.	340/995
<u>5396431</u>	March 1995	Shimizu et al.	701/213
<u>5398188</u>	March 1995	Maruyama	701/208
<u>5434591</u>	July 1995	Goto et al.	345/123
<u>5471392</u>	November 1995	Yamashita	701/200
<u>5613055</u>	March 1997	Shimoura et al.	395/173
<u>5614898</u>	March 1997	Kamiya et al.	340/995

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
0579451	January 1994	EPX	
0624860	November 1994	EPX	
8805199	July 1988	WOX	
9416504	July 1994	WOX	

ART-UNIT: 276

PRIMARY-EXAMINER: Lee; Benjamin C.
ATTY-AGENT-FIRM: Lorusso & Loud

ABSTRACT:

A navigation system provides road guidance by displaying information relating to roads on a structure shape map, together with landmark information, in such a manner that only information around the present position is highlighted. The system retrieves road information in the direction of travel from the present position according to the vehicle speed, or road information within a predetermined angular or distance range in the direction of travel. Information relating to roads includes information indicating a one-way road, information indicating a road into which entry is prohibited, and information indicating a pedestrian crossing and a railroad crossing. These items of information are displayed by using marks, and the landmark information is displayed by using landmarks, thereby displaying information necessary for travel in a readily perceivable manner according to the travel conditions. When the vehicle enters a parking lot in the middle of the guidance for a route to a destination, the system searches for a route from the parking lot to the destination and outputs the found route by using a structure-shape map. The parking lot in this case is one within a predetermined walking distance from the destination. If the parking lot is in close proximity of the destination, further guidance is not necessary and the guidance is terminated.

36 Claims, 32 Drawing figures

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	RWIC

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Terms	Documents
6144318.pn.	1

WEST**End of Result Set** [Generate Collection](#) [Print](#)

L36: Entry 6 of 6

File: USPT

Apr 13, 1999

US-PAT-NO: 5893898

DOCUMENT-IDENTIFIER: US 5893898 A

TITLE: Navigation system having intersection routing using a road segment based database

DATE-ISSUED: April 13, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tanimoto; Satoshi	Irvine	CA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Alpine Electronics, Inc.	Tokyo			JPX	03

APPL-NO: 8/ 692896 [PALM]

DATE FILED: July 30, 1996

INT-CL: [6] G01 C 21/00

US-CL-ISSUED: 701/201, 701/209, 701/211

US-CL-CURRENT: 701/201, 701/209, 701/211

FIELD-OF-SEARCH: 701/201, 701/208, 701/209, 701/210, 701/211, 340/995

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/> <u>4675676</u>	June 1987	Takanabe et al.	340/995
<input type="checkbox"/> <u>4914605</u>	April 1990	Loughmiller, Jr. et al.	364/518
<input type="checkbox"/> <u>4926336</u>	May 1990	Yamada	364/444
<input type="checkbox"/> <u>5041983</u>	August 1991	Nakahara et al.	364/449
<input type="checkbox"/> <u>5270937</u>	December 1993	Link et al.	364/449
<input type="checkbox"/> <u>5307278</u>	April 1994	Hermans et al.	364/450
<input type="checkbox"/> <u>5371678</u>	December 1994	Nomura	364/444
<input type="checkbox"/> <u>5377113</u>	December 1994	Shibasaki et al.	364/449
<input type="checkbox"/> <u>5410485</u>	April 1995	Ichikawa	364/444
<input type="checkbox"/> <u>5508930</u>	April 1996	Smith, Jr.	364/444
<input type="checkbox"/> <u>5519619</u>	May 1996	Seda	364/444
<input type="checkbox"/> <u>5729458</u>	March 1998	Poppen	364/464.1

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
1-173298	July 1989	JPX	
2-260000	October 1990	JPX	
6-25909	April 1994	JPX	

ART-UNIT: 364

PRIMARY-EXAMINER: Zanelli; Michael

ATTY-AGENT-FIRM: Brinks Hofer Gilson & Lione

ABSTRACT:

A route searching system for a vehicle navigation system for navigating on a road network, for use when the road network database is organized in terms of road segments and the destination is a road intersection. The destination road segment for a particular guided route is selected so that the destination road segment is accessible from the destination intersection. This is of benefit when the destination road segment is one permitting only one way travel, and thereby avoids selecting as the destination road segment a one way road permitting travel only into the destination intersection. This allows selection of an optimum route without dictating that the route pass through a one way segment leading only into the destination intersection. Another improvement is destination road segment filtering, whereby if a destination road segment is chosen such that travel on it is zero distance, then that destination road segment is deleted from the guided route, and instead the end of the previous road segment on the guided route is indicated as being the destination. This eliminates unnecessary instructions being given to the driver when he arrives at the destination intersection.

20 Claims, 15 Drawing figures